PHOTOGRAPHIC INTERPRETATION REPORT

NEW UNIT UNDER CONSTRUCTION AT BELOYARSKOYE NUCLEAR POWER PLANT URALS, USSR

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NEW UNIT UNDER CONSTRUCTION AT BELOYARSKOYE NUCLEAR POWER PLANT URALS, USSR

SUMMARY/CONCLUSIONS

Photography of [redacted] has revealed physical details of a new unit under construction at the Beloyarskoye Nuclear Power Plant Urals, USSR (BE No [redacted] Collateral data 1/ has indicated that Soviet nuclear engineers are designing a sodium-cooled fast power reactor with an installed capacity of 600 megawatts electrical (MWe). It is believed that this unit, the largest of its type in the USSR, will be installed in the new building at the Beloyarskoye plant. 1/

25X1D

25X1A

DESCRIPTION OF POWER PLANT

The Beloyarskoye plant, designated in the USSR as Beloyarskaya Atomnaya Elektrostantsiya imeni I. V. Kurchatova, 2/ is located at 56-51-28N 061-19-30E, 4 nautical miles northwest of the village of Beloyarskoye, east of the city of Sverdlovsk (Figure 1). An existing unit

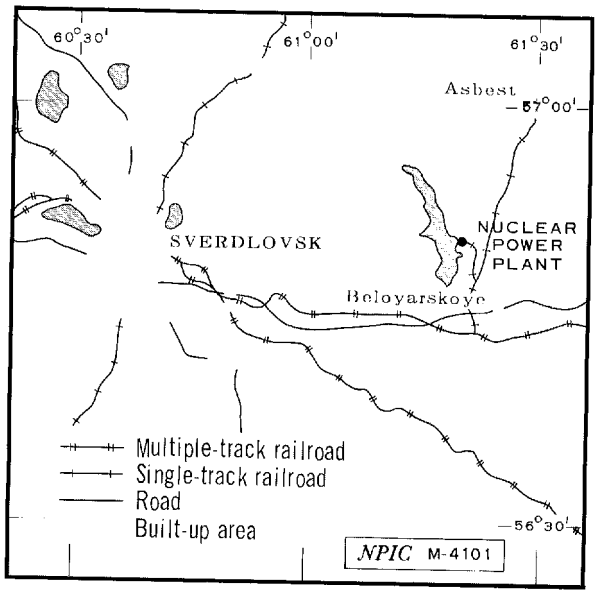

FIGURE 1. LOCATION OF BELOYARSKOYE NUCLEAR POWER PLANT, USSR.

(Figures 2 and 3) comprises a reactor building containing two reactors (100 MWe and 200 MWe installed capacities) 1/ and a generator hall; this unit has been completed and has probably been on line since [redacted] 25X1D

The site for the new unit was cleared in [redacted] but excavation activity was not observed until [redacted] when two excavated rectangles measuring 390 by 200 feet and 640 by 80 feet were seen. By [redacted] the excavation site had reached an overall size of 690 by 525 feet (Figures 2 and 3). Concrete foundation slabs were apparently in the final stages of being poured. These slabs have a similar overall configuration to the plan of a completed power plant, with overall dimensions of approximately 500 by 400 feet and an approximate surface area of 150,000 square feet. The new unit will cover nearly one-third more area than that occupied by the existing building. All the observed concrete was poured in the short period of three months (early [redacted] through early [redacted] When complete, the new power plant unit will be the largest of its type in the USSR. 25X1D 25X1D 25X1D 25X1D 25X1D

Other observations at the construction site included a tower crane with a vertical adjustable boom and a possible second large crane. A possible pipeline was being installed in a deep trench along the south edge of the poured concrete foundation.

Dimensions derived from [redacted] photography included a north-south measurement for the existing unit of [redacted] of interest is a Soviet cross-section drawing acquired prior to [redacted] 3/ which revealed a dimension of [redacted] between the bearing center lines of the outside supporting columns, plus approximately 10 feet for an overall north- 25X1D 25X1D 25X1D 25X1D

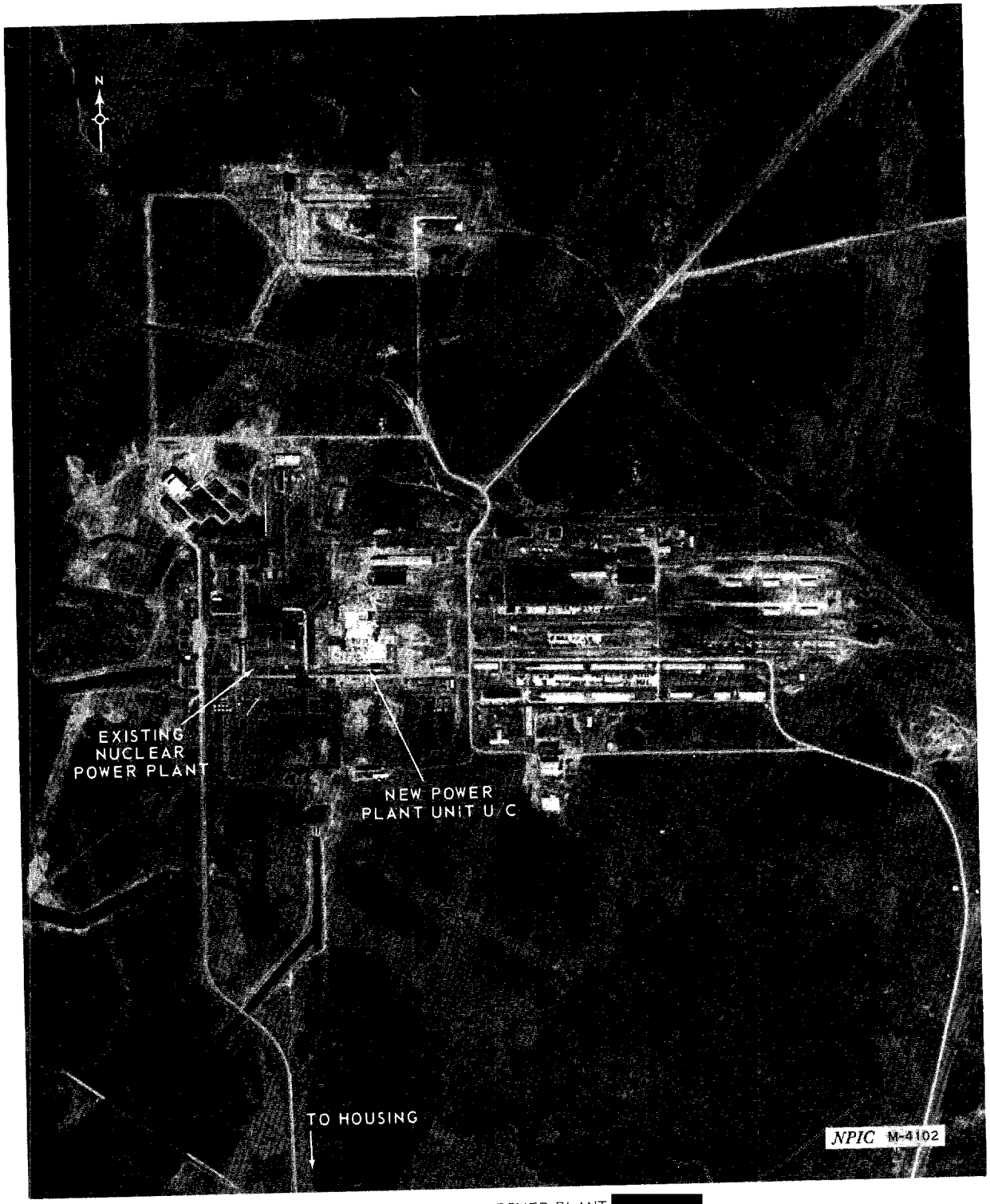

FIGURE 2. NUCLEAR POWER PLANT, [redacted]

25X1D

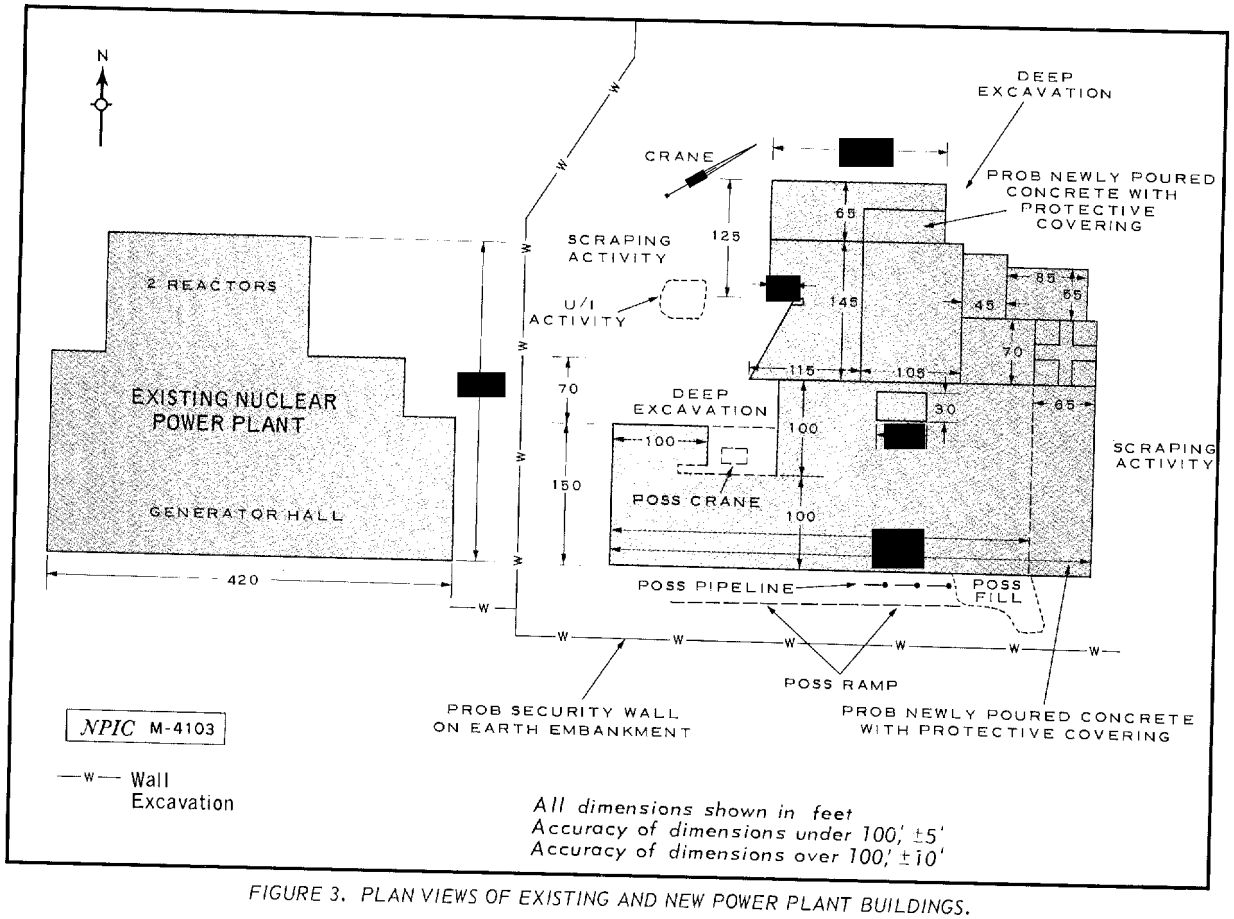

FIGURE 3. PLAN VIEWS OF EXISTING AND NEW POWER PLANT BUILDINGS.

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25X1D

25X1D

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25X1D

south dimension of about [redacted] (a 1.04 percent difference from the photo-derived dimension).

The measurements in this report were made during first-phase reporting, using preliminary ephemeral data; thus, these measurements are subject to change upon the availability of refined attitude data.

REFERENCES

25X1D

PHOTOGRAPHY

[redacted]

MAPS OR CHARTS

ACIC. US Air Target Chart, Series 200, Sheet 0156-18, 1:200,000

DOCUMENTS

25X1A

1. DOD. [redacted] 30 Mar 67 (CONFIDENTIAL/OFFICIAL USE ONLY)
2. US Department of Commerce. JPRS: 42,306. Petrosyants, A.M., *The Radiation Situation in the Area of the Beloyarskaya Atomic Electric Power Station imeni I.V. Kurchatov* (from *Atomnaya Energiya*, USSR, Jul 67), 22 Aug 67 (UNCLASSIFIED)
3. CIA/OSI. SI 21-59, *Status of the Soviet Nuclear Electric-Power Program as of April 1959*, 18 Jun 59 (SECRET)

NPIC PROJECT

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